



Inter-Mountain Labs

Your Environmental Monitoring Partner

1673 Terra Avenue, Sheridan, Wyoming 82801 ph: (307) 672-8945

Date: 8/17/2017

**CLIENT:** Consolidated Analytical Systems  
**Project:** S.H. Bell-Chicago, IL  
**Lab Order:** S1708125

**CASE NARRATIVE**  
**Report ID:** S1708125001

Samples 527.174 S4HV2-072717-R, and 527.175 S4HV1-073017-R were received on August 4, 2017.

All samples were received and analyzed within the EPA recommended holding times, except those noted below in this case narrative. Samples were analyzed using the methods outlined in the following references:

"Standard Methods For The Examination of Water and Wastewater", approved method versions  
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Edition  
40 CFR Parts 136 and 141  
40 CFR Part 50, Appendices B, J, L, and O  
Methods indicated in the Methods Update Rule published in the Federal Register Friday, May 18, 2012  
ASTM approved and recognized standards

All Quality Control parameters met the acceptance criteria defined by EPA and Inter-Mountain Laboratories except as indicated in this case narrative.

Reviewed by:

A handwritten signature in cursive script that reads 'John M. Jacobs'.

John Jacobs, Project Manager



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## Sample Analysis Report

CLIENT: Consolidated Analytical Systems

201 S. Miami Ave

Clevs, OH 45002

Date Reported: 8/17/2017

Report ID: S1708125001

Client Sample ID 527.175 S4HV1-073017-R

Project: S.H. Bell-Chicago, IL

Matrix: airfilter

COC ID: WEB 10129

Collection Date: 7/30/2017

Date Received: 8/4/2017 10:30:00 AM

Lab ID: S1708125-001

Work Order: S1708125

Analyses	Result	RL	MDL	Qual	Units	Method	Date Analyzed/Init
<b>Field</b>							
Actual Volume	1660				m <sup>3</sup>	Field	07/30/2017 000
<b>IO-3.5 TSP</b>							
Arsenic	2.57	5	0.628	J	µg/Filter	IO-3.5	08/11/2017 1342 MS
Cadmium	ND	5	0.19		µg/Filter	IO-3.5	08/11/2017 1342 MS
Chromium	52	5	0.165		µg/Filter	IO-3.5	08/11/2017 1342 MS
Lead	3.97	5	0.00999	J	µg/Filter	IO-3.5	08/11/2017 1342 MS
Manganese	64	5	0.0535		µg/Filter	IO-3.5	08/11/2017 1342 MS
Nickel	1.65	5	0.16	J	µg/Filter	IO-3.5	08/11/2017 1342 MS
Vanadium	0.686	5	0.388	J	µg/Filter	IO-3.5	08/11/2017 1342 MS
<b>Filter Metals Concentration</b>							
Arsenic	1.55	3.01	0.378	J	ng/m <sup>3</sup>	IO-3.5	08/17/2017 1209 JJ
Cadmium	ND	3.01	0.114		ng/m <sup>3</sup>	IO-3.5	08/17/2017 1209 JJ
Chromium	31.2	3.01	0.0994		ng/m <sup>3</sup>	IO-3.5	08/17/2017 1209 JJ
Lead	0.00239	0.00301	0.00000602	J	µg/m <sup>3</sup>	IO-3.5	08/17/2017 1209 JJ
Manganese	38.5	3.01	0.0322		ng/m <sup>3</sup>	IO-3.5	08/17/2017 1209 JJ
Nickel	0.991	3.01	0.0964	J	ng/m <sup>3</sup>	IO-3.5	08/17/2017 1209 JJ
Vanadium	0.413	3.01	0.234	J	ng/m <sup>3</sup>	IO-3.5	08/17/2017 1209 JJ

These results apply only to the samples tested.

RL - Reporting Limit

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- L Analyzed by another laboratory
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

- C Calculated Value
- G Analyzed at IML Gillette laboratory
- J Analyte detected below quantitation limits
- M Value exceeds Monthly Ave or MCL or is less than LQ
- O Outside the Range of Dilutions
- X Matrix Effect

Reviewed by:

John Jacobs, Project Manager



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**Sample Analysis Report****CLIENT:** Consolidated Analytical Systems

201 S. Miami Ave

Clevs, OH 45002

**Date Reported:** 8/17/2017**Report ID:** S1708125001**Client Sample ID** 527.174 S4HV2-072717-R**Project:** S.H. Bell-Chicago, IL**Matrix:** airfilter**COC ID:** WEB 10129**Collection Date:** 7/27/2017**Date Received:** 8/4/2017 10:30:00 AM**Lab ID:** S1708125-002**Work Order:** S1708125

Analyses	Result	RL	MDL	Qual	Units	Method	Date Analyzed/Init
<b>Field</b>							
Actual Volume	1659				m <sup>3</sup>	Field	07/27/2017 000
<b>IO-3.5 TSP</b>							
Arsenic	ND	5	0.628		µg/Filter	IO-3.5	08/11/2017 1405 MS
Cadmium	ND	5	0.19		µg/Filter	IO-3.5	08/11/2017 1405 MS
Chromium	ND	5	0.165		µg/Filter	IO-3.5	08/11/2017 1405 MS
Lead	0.0200	5	0.00999	J	µg/Filter	IO-3.5	08/11/2017 1405 MS
Manganese	ND	5	0.0535		µg/Filter	IO-3.5	08/11/2017 1405 MS
Nickel	ND	5	0.16		µg/Filter	IO-3.5	08/11/2017 1405 MS
Vanadium	ND	5	0.388		µg/Filter	IO-3.5	08/11/2017 1405 MS
<b>Filter Metals Concentration</b>							
Arsenic	ND	3.01	0.379		ng/m <sup>3</sup>	IO-3.5	08/17/2017 1209 JJ
Cadmium	ND	3.01	0.115		ng/m <sup>3</sup>	IO-3.5	08/17/2017 1209 JJ
Chromium	ND	3.01	0.0995		ng/m <sup>3</sup>	IO-3.5	08/17/2017 1209 JJ
Lead	0.0000120	0.00301	0.00000602	J	µg/m <sup>3</sup>	IO-3.5	08/17/2017 1209 JJ
Manganese	ND	3.01	0.0322		ng/m <sup>3</sup>	IO-3.5	08/17/2017 1209 JJ
Nickel	ND	3.01	0.0964		ng/m <sup>3</sup>	IO-3.5	08/17/2017 1209 JJ
Vanadium	ND	3.01	0.234		ng/m <sup>3</sup>	IO-3.5	08/17/2017 1209 JJ

**These results apply only to the samples tested.**

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
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- L Analyzed by another laboratory
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

**RL - Reporting Limit**

- C Calculated Value
- G Analyzed at IML Gillette laboratory
- J Analyte detected below quantitation limits
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- O Outside the Range of Dilutions
- X Matrix Effect

Reviewed by:

John Jacobs, Project Manager





Survey Meter # Model 2241-2; SN 182115  
 pH strip lot # HC54770  
 Thermometer SN# 27130475

### Condition Upon Receipt (Attach to COC)

#### Sample Receipt

1 Number of ice chests/packages received: 1 ROI? Yes ☐ No ☒

*Note as "OTC" if samples are received over the counter, unpackaged*

2 Temperature of cooler/samples. (If more than 8 coolers, please write on back)

Temps Observed (°C): 

--	--	--	--	--	--	--	--

Temps Corrected (°C): 

--	--	--	--	--	--	--	--

*Acceptable is: 0.1° to 10°C for Bacteria; and 0.1° to 6°C for most other water parameters. Samples may not have had adequate time to cool following collection. Indicate ROI (Received on Ice) for iced samples received on the same day as sampled, in addition to temperature at receipt.*

#### Client contact for temperatures outside method criteria must be documented below.

3 Emission rate of samples for radiochemical analyses < 0.5mR/hr? Yes ☐ No ☒ N/A

4 COC Number (If applicable): WEB 10129

5 Do the number of bottles agree with the COC? Yes ☒ No ☐ N/A

6 Were the samples received intact? (no broken bottles, leaks, etc.) Yes ☒ No ☐ N/A

7 Were the sample custody seals intact? Yes ☐ No ☒ N/A

8 Is the COC properly completed, legible, and signed? Yes ☒ No ☐

#### Sample Verification, Labeling & Distribution

1 Were all requested analyses understood and appropriate? Yes ☒ No ☐

2 Did the bottle labels correspond with the COC information? Yes ☒ No ☐

3 Samples collected in method-prescribed containers? Yes ☒ No ☐

4 Sample Preservation:

pH at Receipt:

Final pH (if added in lab):

Preservative/Lot#

Date/Time Added:

\_\_\_\_\_ Total Metals

\_\_\_\_\_ Total Metals

HNO<sub>3</sub> \_\_\_\_\_

\_\_\_\_\_ Diss Metals

\_\_\_\_\_ Diss Metals

Filtered and preserved in metals

Filtered and preserved in metals

\_\_\_\_\_ Nutrient

\_\_\_\_\_ Nutrient

H<sub>2</sub>SO<sub>4</sub> \_\_\_\_\_

\_\_\_\_\_ Cyanide

\_\_\_\_\_ Cyanide

NaOH \_\_\_\_\_

\_\_\_\_\_ Sulfide

\_\_\_\_\_ Sulfide

ZnAcet \_\_\_\_\_

\_\_\_\_\_ Phenol

\_\_\_\_\_ Phenol

H<sub>2</sub>SO<sub>4</sub> \_\_\_\_\_

5 VOA vials have <6mm headspace? Yes ☒ No ☐ N/A

6 Were all analyses within holding time at the time of receipt? Yes ☒ No ☐

7 Specially requested detection limits (RLs) assigned? Yes ☐ No ☒ N/A

8 Have rush or project due dates been checked and accepted? Yes ☐ No ☒ N/A

9 Do samples require subcontracted analyses? Yes ☐ No ☒

*If "Yes", which type of subcontracting is required?*

General

Customer-Specified

Certified

Sample Receipt, Verification, Login, Labeling & Distribution completed by (initials):

Set ID:

KB  
51709125

#### Discrepancy Documentation (use back of sheet for notes on discrepancies)

Any items listed above with a response of "No" or do not meet specifications must be resolved.

Person Contacted: \_\_\_\_\_ Method of Contact: \_\_\_\_\_ Phone: \_\_\_\_\_

Initiated By: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Email: \_\_\_\_\_

Problem:

Resolution: